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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-----------------------------------|------------------|
| 10/730,216 | 12/08/2003 | Wolfgang Sommer | 051812-1240 | 2074 |
| 24504 | 7590 | 09/19/2005 | | |
| THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948 | | | EXAMINER SHARP, JEFFREY ANDREW | |
| | | | ART UNIT 3677 | PAPER NUMBER |

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/730,216 | | SOMMER ET AL. | |
| | Examiner | | Art Unit | |
| | Jeffrey Sharp | | 3677 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 16-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Status of Claims

[1] Claims 1-18 are pending.

Claims 16-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention/specie, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 27 June 2005.

The examiner has fully considered Applicant's remarks traversing the restriction requirement mailed 25 May 2005; however, Applicant is in no position to determine what is/is not burdensome to the examiner. As admitted in the remarks, the derivations of the present invention *are not obvious* in view of each other, and therefore possess patentably distinct technical features. Moreover, the method (process) claims 16-18 do not require the structural particulars of product claim 1, and can be performed on a materially different product. Alternatively, the product may be made from a materially different process such as machining or die-casting. Accordingly, restriction is proper, and the requirement made FINAL.

The examiner acknowledges a possibility of rejoinder later in prosecution, should a generic claim be held allowable.

Claim Objections

[2] Claim 3 is objected to because of the following informalities:

The phrase "barrel-like" renders the claim indefinite because the claim includes elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claims unascertainable. See MPEP § 2173.05(d). This limitation has been treated as it is definite (e.g., "barrel-shaped").

Appropriate correction is required.

Claim Rejections - 35 USC § 112

[3] The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[4] Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clearly shown how the "multiple helical profile" has "at least six pitches". The specification is not clear (page 8 line 15) as to whether or not "pitches" is the same as "threads". Claim 8 has been treated as "...helical profile includes at least six *threads*".

[5] Claims 10 and 11 are also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "flank diameter" is unclear, because it may comprise a major/minor/pitch diameter. This limitation has been treated as it is definite.

Claim Rejections - 35 USC § 102

[6] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent

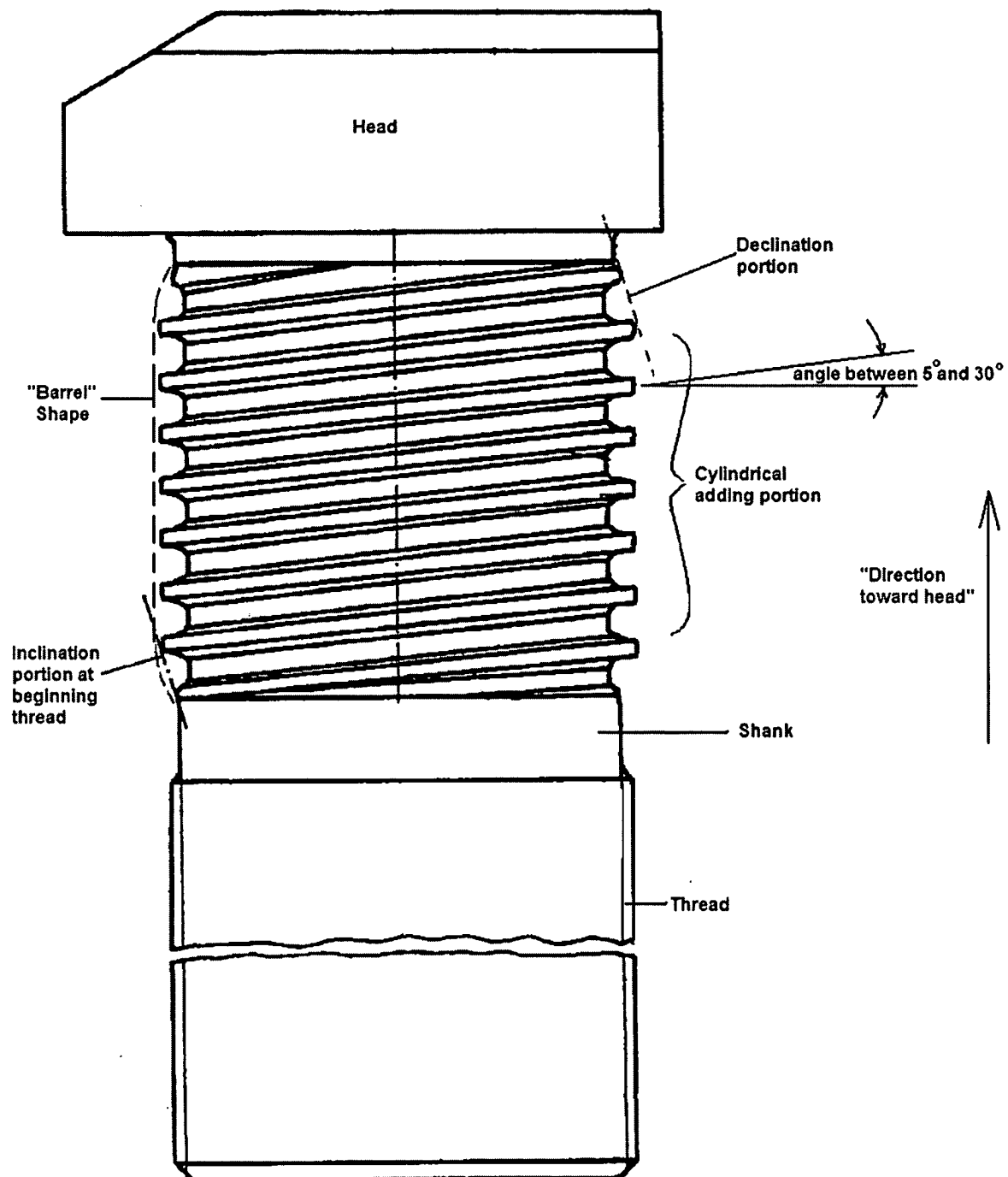
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[7] Claims 1-7, 9, 10, and 15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Damm et al. US-5,645,386.

In short, Damm et al. teaches a "wheel stud" press-fit fastener (1) having a shank (5) head (4), press-fit portion (10) having a multiple helical profile (Abstract lines 9-11), inclination portion (17), declination portion (Figure 2), "barrel-like" shape, cylindrical adding portion having the same outer diameter as the multiple helical profile and being next to the inclination portion toward the head and between the inclination and declination portions.

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Damm et al. US-5,645,386 Figure 2 (annotated). Things clearly shown in reference patent drawings qualify as prior art features, even though unexplained by the specification. In re Mraz, 173 USPQ 25 (CCPA 1972).

As for Claim 9, Damm et al. see col. 4 lines 38-39, and Applicant's admission on page 4 lines 10-12 of the specification, which states that a 10° taper is advantageous because it facilitates rotation of a press-fit fastener within a bore during installation.

As for claim 10, see Damm et al. col. 5 lines 8-12.

As for claim 15, see Damm et al. abstract line 1, and Applicant's admission on page 1 line 15 of the specification.

[8] Claims 1-8, and 10-13 are rejected under 35 U.S.C. 102(b) as anticipated by Waltermire US-3,252,495.

In short, Waltermire teaches a "wheel stud" press-fit fastener (10) having a shank (12) head (13), press-fit portion (11) having a "multiple helical profile" (broad interpretation), inclination portion (col. 4 lines 25-29, lines 57-65), declination portion (col. 4 lines 34-36, col. 5 lines 8-10), "barrel-like" shape (col. 2 line 38), cylindrical adding portion having the same outer diameter as the multiple helical profile and being next to the inclination portion toward the head and between the inclination and declination portions. The fastener (10) has a threaded portion (14) at a second end of the shank. The fastener (10) further comprises a "centering section" (@ numeral 12 in Figure 1) having a larger diameter than a thread of the threaded portion (14), and a smaller diameter than the minimum outer diameter of the helical profile (11). The axial length of the centering section (12) is "approximately" 10 percent that of the outer diameter of the helical profile press-fit portion (11).

Claim Rejections - 35 USC § 103

[9] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[10] Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damm et al. US-5,645,386.

Damm et al. teaches those limitations found in the instant claim 1 as discussed above; however, is silent about having six threads in the multiple helical profile, and is also silent as to the "helical profile having a core diameter which approximately equals the flank diameter of said thread".

As for claim 8, Damm et al. suggests "multiple" threads (col. 3 lines 30-31). Applicant admits this on page 1 lines 17-18 in the specification. Damm et al. further suggest triple (col. 3 line 17), double (col. 3 line 28), and quadruple (col. 7 line 63) threads. It would be obvious to one of ordinary skill in the art, from Damm et al.'s and Applicant's disclosure, that the number of threads in a "*multiple* helical profile" of a "press-fit fastener" could be varied with expected results (greater/lesser insertion force, holding power, profile shear due to interference, rotation upon insertion, alignment, etc.). Further, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Moreover, the courts have held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124

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USPQ 378 (CCPA 1960). In the instant case, Applicant has not provided convincing reasoning as to why six threads is any better than two, three, or four. Additionally, Applicant has not demonstrated how "six" threads would be unobvious in view of prior art that suggests "multiple" threads.

As for claim 11, Damm et al. suggests variations in thread diameter and helical profile diameter, depending on its desired use. It is evident from col. 4 line 60-col. 5 line 7, that larger helical profile diameters would provide a diametrical clearance for the threaded portion, so as to reduce the risk of marring/shearing the threads of the threaded portion not designed for press-fit applications. An ordinarily skilled artisan would appreciate that the helical profile "press-fit portion" could be sized closely in diameter to the threaded portion to save material, weight, or to better suit the press fit portion of the fastener for apertures closely sized in diameter for slight clearance of the threaded portion. A modification such as a mere change in size of the press-fit portion would be obvious, because a change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the number of threads on the multiple helical portion and diametrical size of the press-fit portion relative to the threaded portion, for the advantageous reasons outlined above.

[11] Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Waltermire US-3,252,495.

When interpreted broadly, Waltermire teaches or at least suggests the particulars of claim 12 and 13 as discussed above.

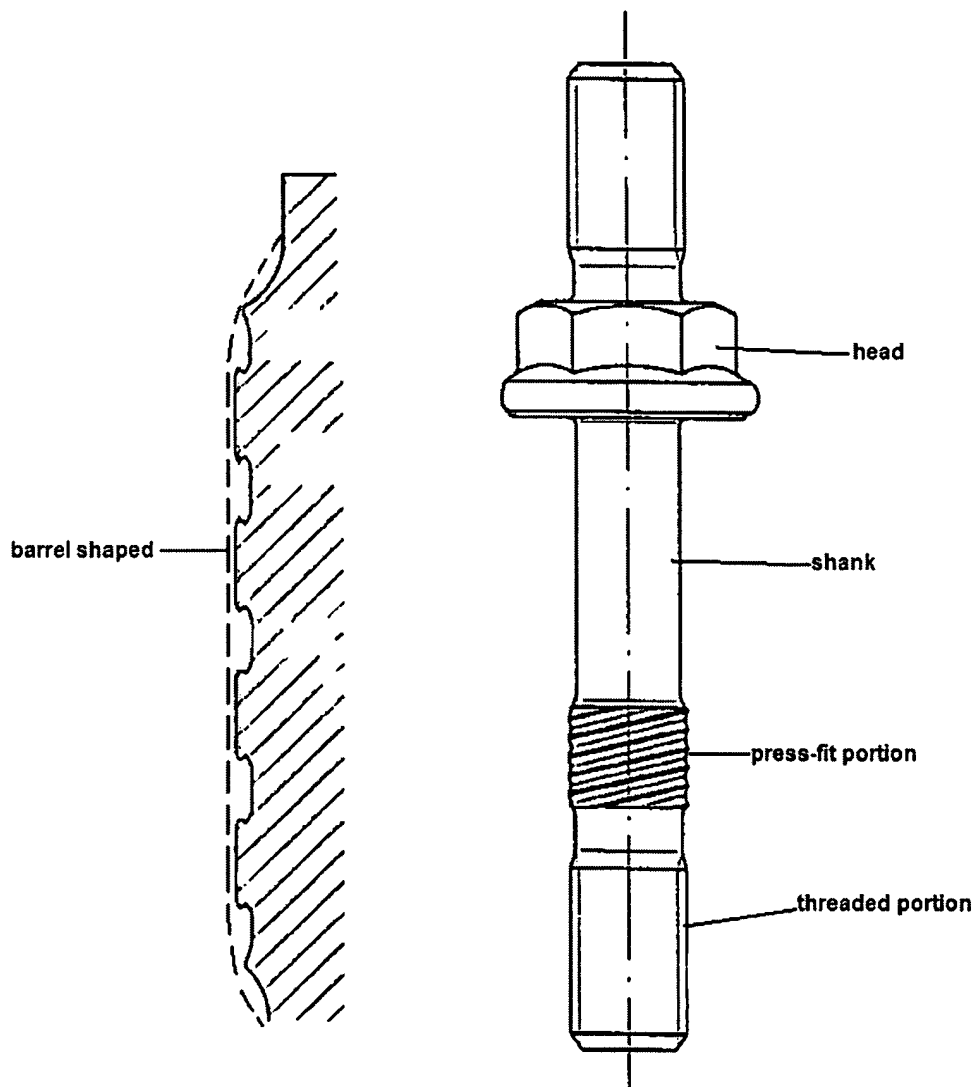
However, Waltermire is silent about the axial length of the centering section being "approximately 25%" of the maximum outer diameter of the press fit portion.

At the time of invention, it would have been obvious to one of ordinary skill in the art to experiment with the axial length of the "centering section" taught by Waltermire, in order to 1) accommodate and suit various panel thicknesses, and/or 2) provide sufficient lead-in and alignment of the press-fit fastener. It would have been further obvious to modify the length of the centering section taught by Waltermire, because a change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

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[12] Claims 1-7, and 9-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hartmann et al. US-6,264,414.

Refer to illustration below. As for the relative diameter limitations, refer to Figure 3 and embodiment (bottom of col. 7, top of col. 8).



Hartmann et al. US-6,264,414 (annotated). Things clearly shown in reference patent drawings qualify as prior art features, even though unexplained by the specification. In re Mraz, 173 USPQ 25 (CCPA 1972).

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Conclusion

[13] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

| | | |
|-------------------|----------|-------------------------------|
| US 20040001744 A1 | US-PGPUB | Kawatani, Teruyuki et al. |
| US 20030118421 A1 | US-PGPUB | Kawatani, Teruyuki et al. |
| US 6612794 B2 | USPAT | Kawatani; Teruyuki et al. |
| US 6537007 B1 | USPAT | Kawatani; Teruyuki et al. |
| US 6296319 B1 | USPAT | Hummel; Frank et al. |
| US 6174117 B1 | USPAT | Kawatani; Teruyuki et al. |
| US 5702214 A | USPAT | Duran; John A. |
| US 20040115026 A1 | US-PGPUB | Sommer, Wolfgang et al. |
| US 20030068214 A1 | US-PGPUB | Sommer, Wolfgang et al. |
| US 4941337 A | USPAT | Emery; Ralph S. |
| US 3455587 A | USPAT | GALLOIS JACQUES |
| US 2407928 A | USPAT | HERRESHOFF ALEXANDER G et al. |
| US 2407928 A | USOCR | HERRESHOFF ALEXANDER G et al. |
| US 4018132 A | USPAT | Abe; Michio |
| US 3418013 A | USPAT | KELLY FRANCIS J |
| US 3456972 A | USPAT | DROTAR FREDERICK L |
| US 3418012 A | USPAT | LA TORRE JACK |
| US 2895368 A | USPAT | TRIGG JR PAUL R et al. |
| US 3418013 A | USOCR | KELLY FRANCIS J |
| US 2895368 A | USOCR | TRIGG JR PAUL R et al. |
| US 5785478 A | USPAT | Rotter; Martin J. |
| US 4815907 A | USPAT | Williamson; Herman L. et al. |
| US 2650032 A | USPAT | GODFREY CHARLES E |
| US 2024071 A | USPAT | TAYLOR STEADMAN O et al. |
| US 6872041 B2 | USPAT | Lohr; Kenneth |
| US 6503038 B2 | USPAT | McGough; Matthew G. |
| US 3455587 A | USOCR | GALLOIS JACQUES |

[14] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (571) 272-7074. The examiner can normally be reached 7:00 am - 5:30 pm Mon-Thurs.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

NEW CENTRAL FAX NUMBER

Effective July 15, 2005

On July 15, 2005, the Central FAX Number will change to 571-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

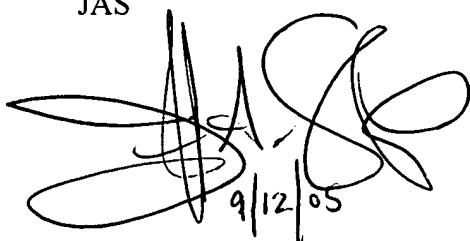
Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until September 15, 2005. After September 15, 2005, the old number will no longer be in service and 571-273-8300 will be the only facsimile number recognized for "centralized delivery".

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS


ROBERT J. SANDY
PRIMARY EXAMINER


9/12/05